Digital Terrain Model Development for the purposes of Flood Modelling in Norway

Adam Podlaha

Impact Forecasting, Aon Benfield, London, United Kingdom

Digital Terrain Model is one of the most important components of flood extent modelling. Its level of detail and quality in general has significant influence on the quality of the resulting flood extent. Depending on parameters of the Digital Terrain Modelling different methods of flood extents creation are selected. Many methods of Digital Terrain Model Development based on topographical data currently exist, however only few were designed for the needs of creating a hydrologically correct Digital Terrain Model which could be utilised directly in Flood Modelling. One of these methods is implemented in ANUDEM created by The Fenner School of Environment and Society at the Australian National University. In this case ANUDEM used to create a Digital Terrain Model for a large part of Norway based on very detailed topographical data, where the smallest contours interval was equal to 1m. Final Digital Terrain Model was a result of selective testing of ANUDEM's parameters and extensive post processing of the raw results.